1. A coiled tubing injector apparatus comprising:

a base;

first and second carriages extending upwardly from the base, wherein each carriage has first and second outer plates; and

a gripper chain system mounted to the first and second outer plates of each carriage, wherein the gripper chain system comprises:

a pair of spaced gripper chain drive sprockets mounted on a drive sprocket shaft for supporting a gripper chain, wherein the gripper chain is adapted to engage coiled tubing, and the drive sprocket shaft has a centerline corresponding to an axis of rotation of the drive sprockets; and

a pair of spaced idler sprockets mounted on an idler sprocket shaft positioned below the gripper chain drive sprockets for supporting the gripper chain, wherein the idler sprocket shaft has a centerline corresponding to an axis of rotation of the idler sprockets, and the centerlines of the drive sprocket shaft and the idler sprocket shaft have a first distance therebetween at first ends of the drive sprocket shaft and idler sprocket shaft and a second distance therebetween at second ends of the drive sprocket shaft and idler sprocket shaft;

wherein:

the first and second distances are initially substantially identical so that the centerlines of the drive sprocket shaft and the idler sprocket shaft are parallel;

the initial substantially identical first and second distances may be established by noting the position of the first and second ends of the idler sprocket shaft relative to witness marks on the first and second outer plates; and

the position of the first and second ends of the idler sprocket shaft can be adjusted to maintain a parallel relationship between the centerlines of the drive sprocket shaft and the idler sprocket shaft if the position of the first or second end of the idler sprocket shaft moves during operation.

2. The coiled tubing injector apparatus of claim 1 wherein the first and second carriages are movable laterally with respect to the base.

3. The coiled tubing injector apparatus of claim 1 wherein:

the first and second ends of the idler sprocket shafts are mounted in first and second housings; and

the position of the first and second ends of the idler sprocket shafts can be monitored by checking the position of the first and second housings relative to the witness marks on the first and second outer plates.

4. The coiled tubing injector apparatus of claim 3 further comprising a scale fixed to the first and second outer plates, wherein:

the initial position of the first and second ends of the idler sprocket shaft can be determined relative to the scale; and

the amount of any movement of the position of the first and second ends of the idler sprocket shaft can be determined by monitoring the position of the first and second housings relative to the scale.

5. The coiled tubing injection apparatus of claim 4 wherein the scale is graduated, so that the amount of movement of the first and second ends is detectable, and so that the first and second ends can be moved the same distance to adjust a tension in the gripper chain and maintain a parallel relationship between the centerlines of the drive sprocket shaft and the idler sprocket shaft.

6. The coiled tubing injector apparatus of claim 1 further comprising a wetting fluid basin for holding a wetting fluid, wherein the wetting fluid basin is positioned below the gripper chains so that the coiled tubing passes through the wetting fluid basin.

7. A method for maintaining a substantially parallel relationship between a drive sprocket axis of rotation and an idler sprocket axis of rotation in a coiled tubing injector, wherein the coiled tubing injector comprises first and second outer plates having a pair of drive sprockets and idler sprockets located therebetween, the drive sprockets are mounted on a drive sprocket shaft, the drive sprocket shaft has a centerline collinear with the drive sprocket axis of rotation, the idler sprockets are mounted on an idler sprocket shaft, and the idler sprocket shaft has a centerline collinear with the idler sprocket axis of rotation, wherein a gripper chain is supported on the drive sprockets and idler sprockets, the method comprising the steps of:

fixing the position of the drive sprocket shaft with respect to the first and second outer plates;

positioning the idler sprocket shaft so that the centerline of the idler sprocket shaft is parallel to the centerline of the drive sprocket shaft and so that an initial distance between first and second ends, respectively, of the drive sprocket shaft and the idler sprocket shaft, is at a desired distance;

placing a witness mark on the first and second outer plates to mark the position of first and second ends of the idler sprocket shaft relative to the first and second outer plates;

monitoring the position of the first and second ends of the idler sprocket shaft relative to the witness marks; and

adjusting the position of the idler sprocket shaft to maintain the parallel relationship between the idler sprocket shaft centerline and the drive sprocket shaft centerline if the first or second end of the idler sprocket shaft moves relative to the witness mark.

8. The method of claim 7 further comprising the steps of:

attaching scales to the first and second outer plates, wherein each scale has a plurality of marks thereon; and

measuring the amount of movement of the first and second ends of the idler sprocket shaft on the scales;

wherein the adjusting step further comprises the step of moving the first and second ends of the idler sprocket shaft to maintain the parallel relationship based on the measured amount of movement.

9. The method of claim 8 further comprising the step of adjusting the tension in the gripper chain supported by the drive and idler sprockets.

10. The method of claim 8 wherein the measuring step further comprises the step of measuring the amount of movement of first and second housings in which the first and second ends of the idler sprocket shaft are mounted.

11. The method of claim 8 wherein the adjusting step is performed while the gripper chains are stationary.

12. The method of claim 8 further comprising the step of repeating the measuring and adjusting steps as necessary to maintain the parallel relationship.